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	9 March 1967 635 - OD-151
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25X1	Post Office Box 8031 Southwest Station Washington, D. C. 20024
25X1	Subject: February 1967 - Project No. 635
	Gentlemen:
	In accordance with contract provisions on the above project, we are enclosing three (3) copies of
	Also enclosed are two (2) copies of our Financial Report for this period.
	Very truly yours,
	25X1
	Executive Vice President
	LHB/aw
	Enc. (3) P. R. (2) F. R.  DECLASS REVIEW by NIMA/DOD
	Cert. #855552

# CONFIDERTIAL

Approved For Release 2004/03/26 : CIA-RDP78B04747A002200020021-3

635 PROGRESS REPORT

PERIOD COVERED:

February 1967

DOCUMENT NO.:

OD-149

### PRESENT STATUS:

The basic unit is undergoing final test and debug phase. Mockups of two microscope adaptors have been fabricated and human engineering tests run to evaluate the different configurations. The two design differed primarily in the eyepiece axis angle to the horizontal; one is 45°, the other 30°. Although all observers agreed that either configuration was a tremendous improvement over the present eyepiece position, there was a general preference for the shallower angle (30°). Consequently, we are tentatively basing the design on the 30° eyepiece configuration. At the suggestion of the customer's technical representative, we will investigate even shallower angles before the final decision is made.

A preliminary design of the optical system has been completed and parts ordered for an optical breadboard.

A brief investigation was also made into the possibility of increasing the general illumination to a point where the high intensity tracking light sources would not be necessary. With a few simple changes, it was possible to approximately double the illumination brightness. It was determined, however, that there was some degradation of effective resolution even with the higher brightness when viewing resolution charts through a density 2.0 filter. Since the customer's technical representative indicated that loss of information (resolution)

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when viewing in density 2.0 film areas was no permissible, further efforts in this area were abandoned.

## PROBLEM AREAS:

- l. <u>Tracking Light Sources</u> Problems associated with the tracking light sources have not been fully resolved although a considerable effort is being expended in this area. The possibility of circumventing the problem by raising the general illumination level discussed above has been discarded.
- 2. The necessity of using a completely assembled unit for human engineering studies of the microscope adaptor has interfered with the schedule for work on the basic unit. However, since the microscope adaptor design is now practically frozen, this interference will disappear.

#### PROJECTED WORK FOR MARCH:

Basic unit will be made operational. Microscope will be breadboarded, designed and fabricated. It is hoped that the complete unit will be ready for the customer's technical representative inspection by the end of the month.

# SUMMARY OF CORRESPONDENCE:

Approval of requested Change-in-Scope was received 2-10-67 from the Contracting Officer.

25X1 E. D. visit to \_\_\_\_\_\_ E. D. made a brief informal 25X1 visit to \_\_\_\_\_\_ on 2-12-67 to review developments in the high intensity light source problem.

#### FINANCIAL REPORT:

Financial report for month of February is enclosed.